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PRC

PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

KIMBALL ELECTRONICS, INC.
JASPER, INDIANA
IND 094 205 614

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

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contains recycled fiber and is recyclable

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

PRC Environmental Management, Inc. (PRC), performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the Kimball Electronics, Inc. (Kimball) facility in Jasper, Dubois County, Indiana. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in prioritizing RCRA facilities for corrective action.

Kimball began operating at its current location on January 15, 1968. The facility has been owned and operated by Kimball International, Inc. (KI) since its inception. The facility occupies 8.2 acres in an industrial, commercial, and residential area in Jasper, Indiana, and it currently employs about 650 people. The facility manufactures printed wiring boards (PWB) for pianos and organs. Kimball generates both hazardous and nonhazardous wastes during the PWB manufacturing operations. Hazardous wastes that area currently generated at the facility include a mixture of spent methyl alcohol and trichlorofluoroethane (F002), a mixture of spent isopropyl alcohol and methyl alcohol (D001), waste organo flux containing isopropyl alcohol (D001), floor stripping residue containing methylene chloride (F002), spent acetone, xylene, and toluene (D001, F003, and F005), defective conformal coating containing toluene and xylene (D001), wastewater sludge containing copper, nickel and chromium (F006), spent wastewater filters containing copper, nickel and chromium (F006), and spent cupric chloride and hydrochloric acid solution (D002). The facility formerly managed several D002 wastes. In late 1991, the facility discontinued the process generating D002 wastes. Special wastes generated at the facility include PTH scrubber machine filters; MP50 sponge type filters; chemcutt machine webb filters; webb filter paper; stainless steel screen mesh; scrubber machine filter paper; scrubber machine filters; screening tank rags and gloves; polyester screen mesh; vapor solder machine filters; scrubber machine recycler filters (bag type); scrubber machine recycle prefilters; Aqua Media; paint filter; overspray papers; glue filters; Thermalcote/4-WAL gloves, rags and cardboard; silicone rubber/4-WAL gloves, rags, and cardboard; adhesive/activator/isopropyl alcohol gloves, rags and cardboard; tap water de-ionizer cartridges; Omegameter alcohol/water de-ionizer cartridges; sorbent pigs and lime; foil contaminated with flux; and gloves, rags, and foil contaminated with humiseal coating.

Kimball submitted a Notification of Hazardous Waste Activity form to EPA on August 18, 1980. The notification reported that hazardous waste generation, treatment, storage, and disposal (G/TSD) were taking place at the facility. Kimball submitted a RCRA Part A permit application on November 21, 1980. The application listed the following process code and capacity: container storage (S01) unit of 55 gallons. The application also listed an estimated 22 tons of D000 waste generation per year. The D000 code referred to vapor degreasing solvent wastes (11% isopropyl alcohol, 50% 1,1,1-trichloroethane, and 38% trichlorofluoroethane) generated by Kimball. Based on the contents of the vapor degreasing solvents, this waste should have been represented by D001, F001 or F002 waste code. This waste is currently not being generated. The S01 container storage unit referred to the Former Hazardous Waste Storage Area (SWMU 9). This unit is inactive. The facility currently operates as a large-quantity generator of hazardous wastes.

The PA/VSI identified the following nine SWMUs at the facility:

Solid Waste Management Units

1. Hot Room--Flammable Hazardous Waste Storage Area
2. Waste Trichlorofluoroethane Storage Area
3. Nonflammable and Acidic Hazardous Waste Storage Area
4. Special Waste Storage Area
5. Wastewater Holding Tank
6. Wastewater Pretreatment Plant
7. Spent Cupric Chloride Holding Tank
8. Production Area Satellite Accumulation Units
9. Former Hazardous Waste Storage Area

PRC did not find any areas of concern at the facility.

The above SWMUs do not pose a significant threat to the surrounding environment. All the SWMUs with the exception of the Former Hazardous Waste Storage Area (SWMU 9) were enclosed in a building with concrete floor. The Former Hazardous Waste Storage Area (SWMU 9) was located on a loading dock in the eastern portion of the facility. This unit is currently not being used. There have been no documented or observed releases from any of these SWMUs. All waste storage containers in these units were sealed and labeled. The potential for releases to ground water, surface water, air, or on-site soils from any of these units is low.

Receptors of potential releases from the facility include Kimball employees and nearby area residents. Ground water in this area is used for agricultural, industrial, and private water supply. About nine wells were identified within a 1-mile radius of the facility. The nearest drinking water well is located about 0.5 mile west and upgradient of the facility. The nearest surface water body, Patoka River is located within 0.25 mile east of the facility and is used for municipal, agricultural, commercial, and recreational purposes. Several lakes, intermittent streams, drains, and brooks were identified within a 3-mile radius. These lakes, streams, drains, and brooks commingle with the Patoka River along its course, and are used for recreational purposes. Surface water at the facility is discharged to the Patoka River through stormwater drains located in the facility's parking lot. The facility is not located in a flood-prone area or sensitive environment. However, an area located 800 feet east of the facility experiences temporary flooding from the Patoka River. The nearest sensitive environment, wetlands, is located within 1 mile north of the facility. The areal extent of the wetlands is unknown.

Based on the VSI findings, PRC recommends that Kimball furnish details pertaining to the closure inspection and approval for the Former Hazardous Drum Storage Area (SWMU 9).

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has usually exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading or unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release of hazardous waste or constituents to the environment has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where a strong possibility exists that such a release might occur in the future.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes a review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs; photographing all visible SWMUs; identifying evidence of releases; making a preliminary selection of potential sampling parameters and locations, if needed; and obtaining additional information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Kimball Electronics, Inc. (Kimball), facility (EPA Identification No. IND 094 205 614) in Jasper, Dubois County, Indiana. The PA was completed on July 10, 1992. PRC gathered and reviewed information from the Indiana Department of Environmental Management (IDEM), Indiana Department of Natural Resources (IDNR), U.S. Department of Agriculture - Soil Conservation Service (USDA), U.S. Department of Commerce (USDC), U.S Department of Interior (USDI), U.S. Geological Survey (USGS), and EPA Region 5 RCRA files. The VSI was conducted on July 14, 1992. It included interviews with

facility representatives and a walk-through inspection of the facility. PRC identified nine SWMUs and no AOCs at the facility.

PRC completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included as Attachment A to this report. The VSI is summarized and nine inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C.

2.0 FACILITY DESCRIPTION

This section describes the facility's location; past and present operations; waste generating processes and waste management practices; a history of documented releases; regulatory history; environmental setting; and receptors.

2.1 FACILITY LOCATION

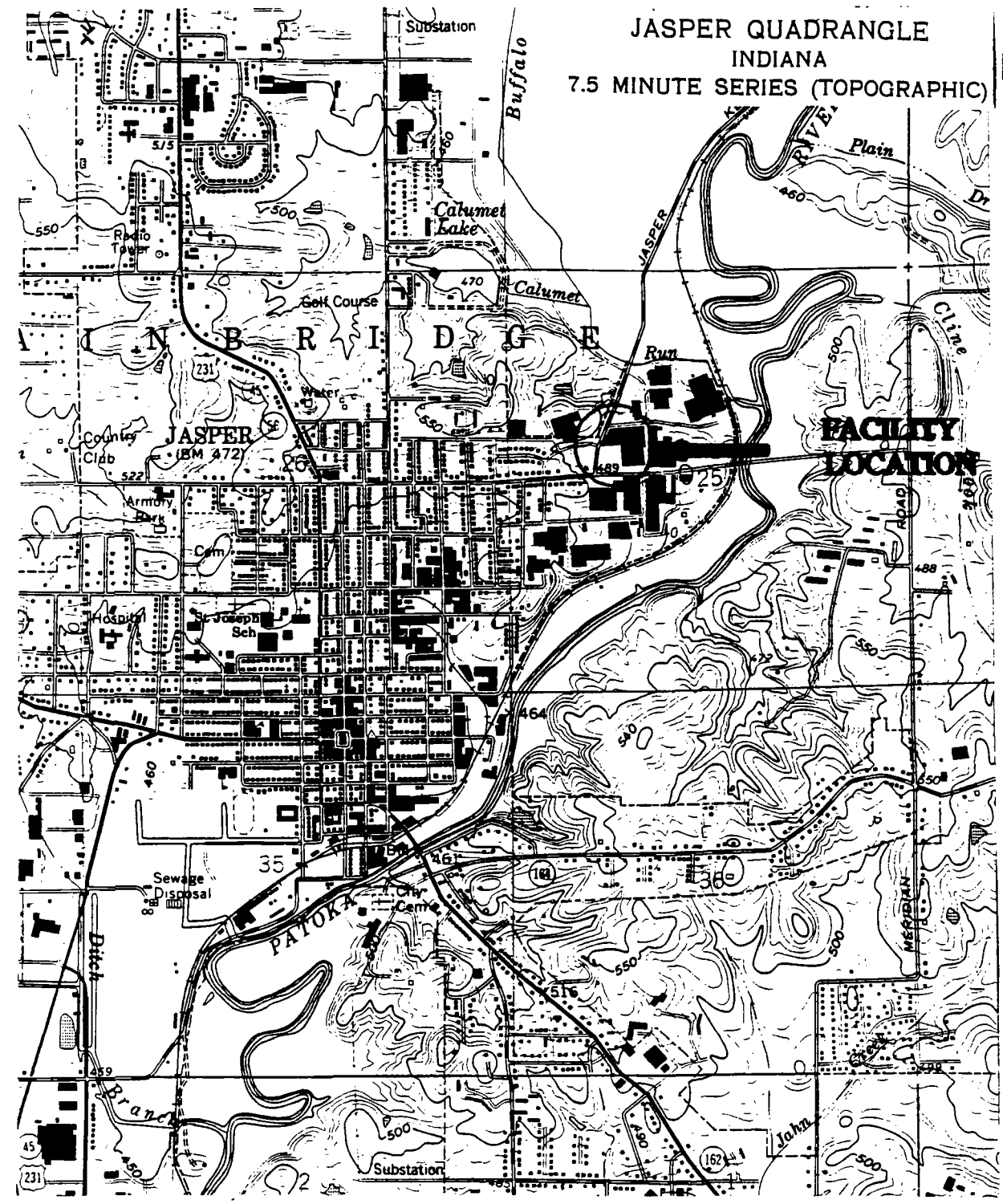
The Kimball facility is located at 1038 East 15th Street in Jasper, Dubois County, Indiana. Jasper is a small town of about 10,000 people located 110 miles southwest of Indianapolis. Figure 1 shows the location of the facility in relation to the surrounding topographic features (latitude 38°23'35"N and longitude 86°55'02"W) (Kimball, 1980b). The facility occupies 8.2 acres in an industrial, commercial, and residential area.

The facility is bordered on the north by East 16th Street and Jasper Laminates - Plant No. 3, a division of Kimball International, Inc. (KI); on the east by Cherry Street and Inwood Office Furniture Company; on the south by East 15th Street and ARTEC - a division of KI; and on the west by Kellersville Road and KI Corporate Headquarters. These KI facilities operated under separate EPA identification numbers.

2.2 FACILITY OPERATIONS

Kimball began operating at its current location on January 15, 1968 (Kimball, 1980a). The facility was originally named Kimball Piano and Organ Company - Electronics Division. In October 1985, the facility changed its name to Kimball Electronics - Jasper Division. The facility has been owned and operated by KI since its inception. The facility currently employs about 650 people.

The facility manufactures printed wiring boards (PWB) for pianos and organs. The production of PWBs involves several steps including circuitry path imprinting; ultraviolet light etching; hot-air leveling (HAL); circuit board assembly by plating through hole (PTH) and surface mount technology (SMT); wave and reflow soldering; and conformal coating or potting. Both hazardous and nonhazardous wastes are generated during these operations. Hazardous wastes generated at the facility include D001, D002, D008, F002, F003, F005, and F006 wastes. Solid



KIMBALL ELECTRONICS–JASPER DIVISION
JASPER, INDIANA

FIGURE 1
FACILITY LOCATION

SOURCE: MODIFIED FROM USGS, JASPER QUADRANGLE, 1990

PRC ENVIRONMENTAL MANAGEMENT, INC.

wastes generated from facility operations and the SWMUs where they are managed are detailed in Section 2.3.

Currently, the facility consists of a warehouse, wastewater pretreatment plant, keyboard assembly area, PWB manufacturing area, and parking lots. All the manufacturing operations are conducted in one building. The facility building occupied about 80,000 square feet when it began operations in 1968. Manufacturing operations initially involved only wave soldering and solvent PWB cleaning. The facility added PWB etching in 1969, silk screening in 1970, aqueous cleaning in 1981, PTH operations and wastewater pretreatment in 1985, conformal coating in 1988, and SMT operations in 1989. The PTH process was reportedly phased out in late 1991. The facility building currently occupies 200,000 square feet (Kimball, 1992a).

Raw materials used at the facility generally include caustic chemicals and solvents. Flammable chemicals, such as isopropyl alcohol, ethyl alcohol, acetone, xylenes, and toluene are stored in containers in fire and spill protection areas. Hydrochloric acid is stored in a 4,000-gallon aboveground storage tank (AST) located outdoors on an enclosed dock. The facility uses sumps for holding industrial wastewater. The facility uses a 5,700-gallon non-metal bearing wastewater sump, 558-gallon metal bearing wastewater sump, and a 500-gallon polyethylene underground storage tank for accumulating metal bearing wastewater. No underground storage tanks (USTs) are used for storing petroleum products.

2.3 WASTE GENERATION AND MANAGEMENT

Both hazardous and nonhazardous wastes are generated and managed at various locations at the facility. The facility's SWMUs and their current status are identified in Table 1. The facility layout, including SWMUs and AOCs, is shown on Figure 2. The facility's waste streams are summarized in Table 2.

A majority of the wastes were generated during the PTH operations. However, the facility discontinued the PTH process in early 1991, and thereby stopped generating the associated wastes. Currently, hazardous wastes at the facility are generated during cleanup, fluxing, wave soldering, and SMT operations at PWB assembly lines; HAL processes; wastewater treatment operations; and conformal coating operations. Unless otherwise noted all the wastes are accumulated in 55-gallon drums in the Production Area Satellite Accumulation Units (SWMU 8); D001, F002, F003, and F005 wastes are stored for less than 90 days in the Hot Room--Flammable Hazardous Waste

TABLE 1

SOLID WASTE MANAGEMENT UNITS

SWMU Number	SWMU Name	RCRA Hazardous Waste Management[a]	Status
1	Hot Room--Flammable Hazardous Waste Storage Area	No	Active
2	Waste Trichlorofluoroethane Storage Area	No	Active
3	Nonflammable and Acidic Hazardous Waste Storage Area	No	Active
4	Special Waste Storage Area	No	Active
5	Wastewater Holding Tank	No	Active
6	Wastewater Pretreatment Plant	No	Active
7	Spent Cupric Chloride Holding Tank	No	Active
8	Production Area Satellite Accumulation Units	No	Active
9	Former Hazardous Waste Storage Area	Yes	Inactive since 1982; closure activities executed in early 1982; PRC did not find a letter of closure approval from IDEM or EPA.

Note:

[a] A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.

TABLE 2

SOLID WASTES

Waste/EPA Waste Code	Source	Solid Waste Management Unit
Mixture of Spent Methyl Alcohol and Trichlorofluoroethane/F002	Cleanup of PWB assemblies	2 and 8
Mixture of Spent Isopropyl Alcohol and Ethyl Alcohol/D001	Fluxing of PWB assemblies	1 and 8
Spent HAL Flux Containing Lead/D008	HAL operations	3 and 8
Waste Organo Flux Containing Isopropyl Alcohol/D001[a]	HAL operations	1 and 8
Floor Stripping Residue Containing Methylene Chloride/F002	Floor stripping	1 and 8
Defective Conformal Coating Containing Toluene and Xylenes/D001[a]	Conformal coating operations	1 and 8
Spent Acetone, Xylene, and Toluene/D001, F003, and F005	Conformal coating operations	1 and 8
Spent Cupric Chloride and Hydrochloric Acid Solution/D002	Single- and double-sided non PTH process	4 and 7
Wastewater Containing Copper, Nickel, and Chromium/NA[c]	Etching, screening, and soldercoat precleaning operations	5 and 6
Wastewater Sludge Containing Copper, Nickel, and Chromium/F006	Wastewater treatment operations	6
Spent Wastewater Filters Containing Copper, Nickel, and Chromium/F006	Wastewater treatment operations	3 and 6

Notes:

a These wastes were not generated on a regular basis.

b "Unknown" indicates that the waste was generated at the facility but that the SWMU that managed the waste cannot be determined.

c Not applicable (NA) designates nonhazardous waste.

d Past waste streams. The facility has not generated these wastes since early 1992.

e Facility eliminated this process.

TABLE 2 (Continued)

SOLID WASTES

Waste/EPA Waste Code	Source	Solid Waste Management Unit
Spent Copper Bath Containing Sulfuric Acid/D002[d]	PTH process[e]	3 and 8
Waste Residue Remover Containing Hydrochloric Acid/D002[d]	PTH process[e]	3 and 8
Waste Developer Containing Sulfuric Acid and Nickel/D002[d]	PTH process[e]	3 and 8
Spent Copper Filters Containing Sulfuric Acid/D002[d]	PTH process[e]	3 and 8
Spent Tin and Lead Filters Containing Methane Sulfonic Acid/D002[d]	PTH process[e]	3 and 8
Waste Acid Cleaner Containing Sulfuric Acid/D002	PTH process[e]	3 and 8
Sludge from Dark Room Fixer/NA[a,d,c]	PTH process[e]	Unknown[b]
Spent Material from Film Developing/NA[a,d,c]	PTH process[e]	Unknown[b]
Dry Film Sludge from Film Process/NA[a,d,c]	PTH process[e]	Unknown[b]
Cleaner and Conditioner/NA[a,d,c]	PTH process[e]	Unknown[b]
Resist Strip of Dry Film/NA[a,d]	PTH process[e]	Unknown[b]
Waste Acid Cleaner Containing Fluobonic Acid/D002[d]	PTH process[e]	3 and 8
Immersion Tin Bath of Stannous Fluobonic Acid/D002[d]	PTH process[e]	3 and 8

Notes:

a These wastes were not generated on a regular basis.

b "Unknown" indicates that the waste was generated at the facility but that the SWMU that managed the waste cannot be determined.

c Not applicable (NA) designates nonhazardous waste.

d Past waste streams. The facility has not generated these wastes since early 1992.

e Facility eliminated this process.

TABLE 2 (Continued)

SOLID WASTES

Waste/EPA Waste Code	Source	Solid Waste Management Unit
Black Oxide Bath of Sodium Hydroxide and Sodium Chloride/D002[d]	PTH process[e]	3 and 8
Waste Petrofern/D001[a,d]	PTH process[e]	Unknown[b]
Waste Tin/Lead Bath of Sodium Hydroxide/D002[d]	PTH process[e]	3 and 8
Spent Kester Solvent Containing Isopropyl Alcohol, 1,1,1-Trichloroethane, and Trichlorofluoroethane/(D000)[f]	Removal of resin flux from soldering operations	9
Special Wastes/NA[a,c]	Several different facility operations	4 and 8
Contaminated Rock, Debris, and Pig Adsorbent/NA[a,c]	Spill recovery operations	Unknown[b]

Notes:

a These wastes were not generated on a regular basis.

b "Unknown" indicates that the waste was generated at the facility but that the SWMU that managed the waste cannot be determined.

c Not applicable (NA) designates nonhazardous waste.

d Past waste streams. The facility has not generated these wastes since early 1992.

e Facility eliminated this process.

f D000 code was selected by the facility to represent toxic wastes. The facility has not generated this waste since 1982.

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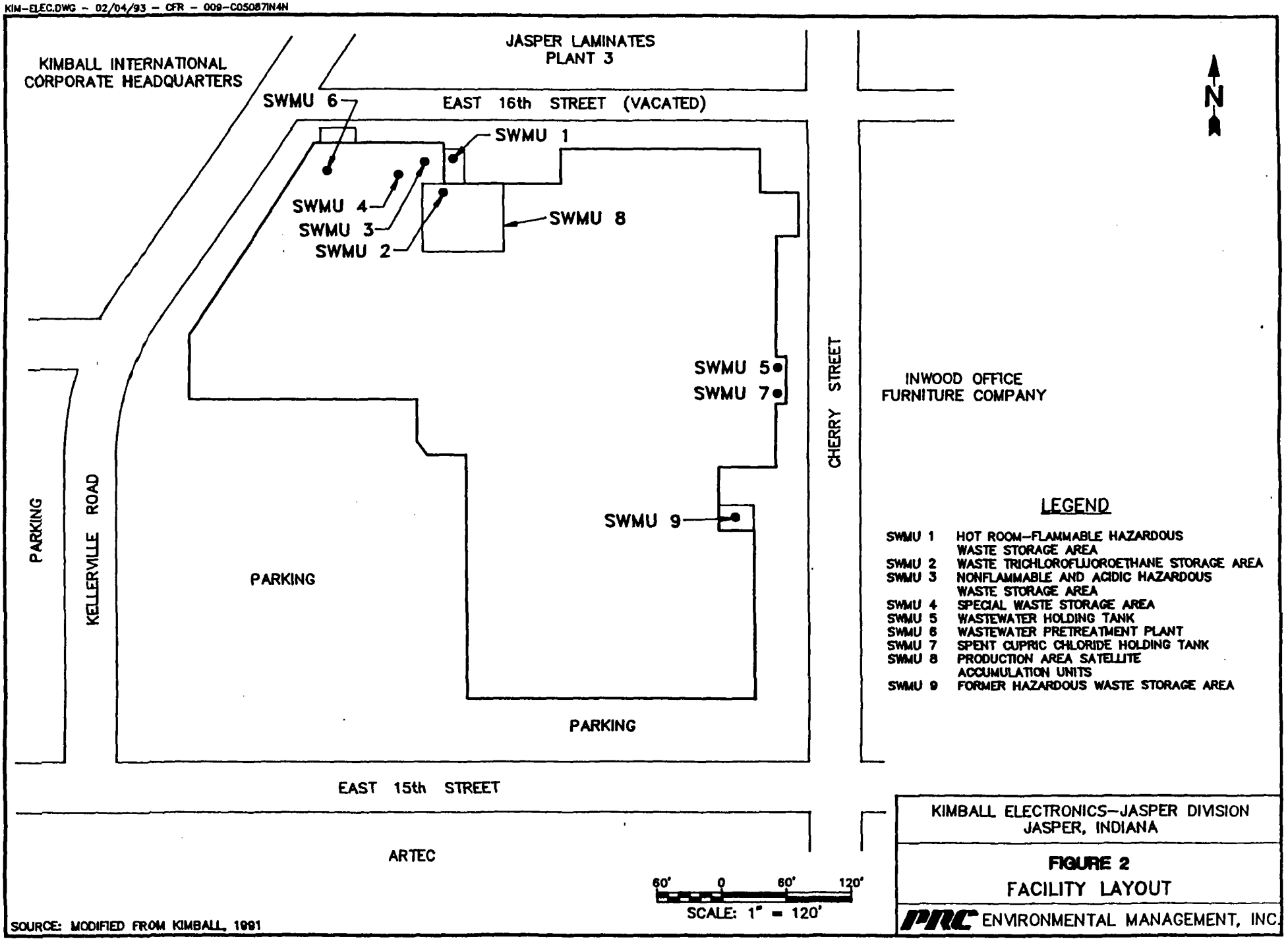


SOURCE: MODIFIED FROM KIMBALL, 1991

KIMBALL ELECTRONICS-JASPER DIVISION
JASPER, INDIANA

FIGURE 2

FACILITY LAYOUT

PRC ENVIRONMENTAL MANAGEMENT, INC.

Storage Area (SWMU 1); and D002, D008, and F006 wastes are stored for less than 90 days in the Nonflammable and Acidic Hazardous Waste Storage Area (SWMU 3). Nonhazardous and special wastes are stored in the Special Wastes Storage Area (SWMU 4).

Two waste streams are generated during the PWB assembly line operations (Kimball, 1992b). These include a mixture of spent methyl alcohol [9 percent (%)] and trichlorofluoroethane (89%) (F002) generated during cleanup of PWB assemblies, and a mixture of spent isopropyl alcohol (83%) and ethyl alcohol (16%) (D001) generated during fluxing of PWB assemblies. The mixture of spent methyl alcohol and trichlorofluoroethane waste is stored for less than 90 days in the Waste Trichlorofluoroethane Storage Area (SWMU 2). Both the wastes are transported by Ulrich Chemical (IND 044 198 034) of Evansville, Indiana, to Avganic Industries (Avganic) (IND 984 866 541 and WID 000 908 824) of Terra Haute, Indiana, and Cottage Grove, Wisconsin, for solvent reclamation, fuel blending and incineration. Approximately 330 gallons of the mixture of spent methyl alcohol and trichlorofluoroethane, and 1,650 gallons of the mixture spent isopropyl alcohol and ethyl alcohol were generated in 1991 (Kimball, 1992b).

Two waste streams are generated during HAL operations (Kimball, 1992b). These include spent HAL flux containing lead (D008) and waste organo flux containing isopropyl alcohol (D001). Waste organo flux is not generated on a regular basis. These wastes are transported off-site by Heritage Transport and Avganic. Spent HAL flux containing lead is transported to Avganic of Terra Haute, Indiana, and Michigan Disposal of Belleville, Michigan. Avganic incinerates this waste, whereas Michigan Disposal treats and landfills this waste. Waste organo flux is transported to Heritage Environmental Services, Inc., and fuel-blended. In 1991, the HAL process generated approximately 230 gallons of spent HAL flux and 110 gallons of waste organo flux. About 500 gallons of spent HAL flux were generated in 1992 (Kimball, 1992b).

Floor stripping residue containing methylene chloride (F002) is generated during floor stripping operations throughout the facility. This waste is transported by Ulrich Chemical (IND 044 198 034) to Avganic of Terre Haute, Indiana, for fuel blending and incineration. In 1991, approximately 385 gallons of this waste were generated and shipped off-site (Kimball, 1992b).

Two waste streams are generated during conformal coating operations (Kimball, 1992b). These include defective conformal coating containing toluene and xylenes (D001), and spent acetone, xylene, and toluene (D001, F003, and F005). Defective conformal coating is not generated on a regular basis. This waste is transported by Heritage Transport to Trade Waste

Incineration of Sauget, Illinois for incineration. Spent acetone, xylene, and toluene is transported by Ulrich Chemical to Avganic of Terre Haute, Indiana, for fuel blending and incineration. Approximately 110 gallons of spent acetone, xylene, and toluene were generated in 1991. About 330 gallons of defective conformal coating were shipped off-site in 1990 (Kimball, 1992b).

Spent cupric chloride and hydrochloric acid (D002) solution is generated during etching and screening of single- and double-sided wiring board (Kimball, 1992b). This waste is collected in a 3,000-gallon Spent Cupric Chloride Holding Tank (SWMU 7) and 1,000-gallon AST in the Special Waste Storage Area (SWMU 4). This waste is transported by Metropolitan Environmental, Inc. (INT 190 010 397), of Celina, Ohio, to Recontek (ILD 984 766 279) of Newman, Illinois, for neutralization and copper reclamation. About 1,700 gallons of this waste were generated in 1992 (Kimball, 1992b). This waste is not accumulated in Production Area Satellite Accumulation Units (SWMU 8).

Wastewater from etching, screening, and soldercoat precleaning operations at the facility is collected in the Wastewater Holding Tank (SWMU 5), and pretreated in the Wastewater Pretreatment Plant (SWMU 6) (Kimball, 1992b). The industrial wastewater includes non-metal bearing wastes and metal bearing wastes. Metal bearing wastes generally include copper, nickel, and chromium. Wastewater is pretreated by a continuous flow metal hydroxide precipitation process and a continuous flow pH adjustment process. Pretreated wastewater is discharged into the City of Jasper sanitary sewer system, Jasper, Indiana. Wastewater sludge containing copper, nickel, and chromium (F006) generated during wastewater treatment operations is filter pressed and dewatered, and stored in a 30-cubic-yard roll-off dumpster which is part of the Wastewater Pretreatment Plant (SWMU 6). This waste is not stored in the Acidic and Nonflammable Hazardous Waste Storage Area (SWMU 3). Sludge is transported by Envirite Corporation (ILD 000 666 206) to its facility in Harvey, Illinois, where it is delisted and landfilled. This waste was formerly transported by Ashland Chemical (KYD 024 041 063) of Louisville, Kentucky, to Chemical Waste Management (ALD 093 219 012) in Emelle, Alabama, for treatment and landfilling. Spent wastewater filters containing copper, nickel, and chromium (F006) generated during pretreatment operations are managed in the Nonflammable and Acidic Hazardous Waste Storage Area (SWMU 3). This waste is transported by Heritage Transport to Heritage Environmental Services of Indianapolis, Indiana, for treatment and landfilling. The facility treats approximately 11,000 gallons of wastewater per day. About 200 55-gallon drums of sludge and 4 55-gallon drums of spent wastewater filters were generated in 1991 (Kimball, 1992b).

Sixteen waste streams were generated during the former PTH operations (Kimball, 1992a). Some of these waste streams are considered one-time events only, because they were not generated on a regular basis and are no longer generated at the facility. Wastes generated during PTH processes included: spent copper bath containing sulfuric acid [19 grams per liter (g/L)] (D002), waste residue remover containing hydrochloric acid (D002), waste developer containing sulfuric acid and nickel [0.6 milligrams per liter (mg/L)] (D002), spent copper filters containing sulfuric acid (D002), spent tin and lead filters containing methane sulfonic acid (D002), waste acid cleaner containing sulfuric acid (D002), sludge from dark room fixer (nonhazardous, contents unknown), spent material from film developing (nonhazardous, contents unknown), dry film sludge from dry film process (nonhazardous, contents unknown), cleaner and conditioner (nonhazardous, contents unknown), resist strip of dry film (nonhazardous contents unknown), waste acid cleaner containing fluobonic acid (D002), immersion tin bath of stannous fluobonic acid (D002), black oxide bath of sodium hydroxide and sodium chloride (D002), waste Petrofern (D001), and waste tin/lead bath of sodium hydroxide (contains about 300 mg/L of lead and 2100 mg/L of tin) (D002). The SWMUs that managed sludge from dark room fixer, spent material from film developing, dry film sludge, cleaner and conditioner, resist strip of dry film, and waste Petrofern are unknown. These six waste streams were not generated on a regular basis. All the wastes generated during PTH process except spent copper filters containing sulfuric acid, spent tin and lead filters containing methane sulfonic acid, spent copper bath containing sulfuric acid, dry film sludge from film process, cleaner and conditioner, and resist strip of dry film were transported by Heritage Transport (IND 058 484 114) to Heritage Environmental Services (IND 093 219 012) in Indianapolis, Indiana. Spent copper bath containing sulfuric acid was transported by SUMCO, Inc., to its facility in Indianapolis, Indiana, and used as untreated feedstock in production process. All the remaining wastes were transported by Heritage Transport to either Michigan Disposal or Wayne Disposal of Belleville, Michigan. Wastes transported to Heritage Environmental Services were brokered, fuel blended, and incinerated, whereas the wastes transported to Michigan Disposal (MID 000724831) and Wayne Disposal (MID 048 090 633) were treated and landfilled. In 1991, the PTH process generated the following waste quantities: approximately 14 55-gallon drums of spent copper bath containing sulfuric acid, 275 gallons of waste residue remover containing hydrochloric acid, 1,210 gallons of waste developer containing sulfuric acid and nickel, 1,967 pounds of spent copper filters containing sulfuric acid, four 55-gallon drums of spent tin and lead filters containing methane sulfonic acid, 120 gallons of acid cleaner containing sulfuric acid, 110 gallons of sludge from dark room fixer, 165 gallons of spent material from film developing, 110 gallons of dry film sludge from dry film process, 110 gallons of cleaner and conditioner, 715 gallons of resist strip of dry film, 55 gallons of waste acid cleaner containing

fluobonic acid, 55 gallons of immersion tin bath of stannous fluobonic acid, 110 gallons of waste black oxide containing sodium hydroxide and sodium chloride, 55 gallons of waste Petrofern, and 660 gallons of waste tin/lead bath of sodium hydroxide containing lead and tin (Kimball, 1992b).

Prior to 1982, Kimball generated spent Kester solvent (D000), a vapor degreasing solvent containing 11% isopropyl alcohol, 50% 1,1,1-trichloroethane, and 38% trichlorofluoroethane (ISBH, 1982). Kester solvent was used to remove resin flux from soldering operations. The facility selected waste code D000 to represent the toxicity characteristic of this waste. Actually this waste should have been represented by D001, F001 and F002 waste codes. This waste was managed in the Former Hazardous Waste Storage Area (SWMU 9).

Nonhazardous wastes, approved by IDEM as special wastes, are generated during several operations at the facility (Kimball, 1992c). These wastes include PTH scrubber machine filters; MP50 sponge type filters; chemcutt machine webb filters; webb filter paper; stainless steel screen mesh; scrubber machine filter paper; scrubber machine filters; screening tank rags and gloves; polyester screen mesh; vapor solder machine filters; scrubber machine recycler filters (bag type); scrubber machine recycle prefilters; Aqua Media; paint filter; overspray papers; glue filters; Thermalcote/4-WAL gloves, rags and cardboard; silicone rubber/4-WAL gloves, rags, and cardboard; adhesive/activator/isopropyl alcohol gloves, rags and cardboard; tap water de-ionizer cartridges; Omegameter alcohol/water de-ionizer cartridges; sorbent pigs and lime; foil contaminated with flux; and gloves, rags, and foil contaminated with humiseal coating. Kimball is permitted to dispose of all special wastes at Blackfoot Sanitary Landfill in Lynnville, Indiana, and Jasper Sanitary Landfill in Jasper, Indiana (Kimball, 1992c). The annual rate of special waste generation is unknown.

Contaminated rock, debris, and pig adsorbent (nonhazardous) were generated as a result of hydrogen peroxide spill recovery operations at the facility (Kimball, 1992b). The SWMU that managed this waste is unknown. In 1990, about six 55-gallon drums of this waste was transported by Heritage Transport to Adams Center Landfill (IND 078 911 146) of Fort Wayne, Indiana.

All the wastes that are currently managed in SWMUs 1, 2, 3, and 4 were previously managed, between August 1988 and November 1991, in the North Annex Drum Storage Area in Jasper Laminates facility located adjacent to the Kimball facility (Kimball, 1992a). Jasper Laminates is also a subsidiary of KI, and operates under a separate EPA identification number.

2.4 HISTORY OF DOCUMENTED RELEASES

This section discusses the history of documented releases to ground water, surface water, air, and on-site soils at the facility.

According to a facility representative, in 1990, a small amount of copper sulfate and sulfuric acid mixture was spilled adjacent to the wastewater treatment area. The spill area consisted of several limestone rocks. Kimball contained the spill with pig adsorbents and removed all the rocks and surrounding debris contaminated with copper sulfate and sulfuric acid. Soil samples obtained from this area did not indicate any contamination (Kimball, 1992c). The facility representative indicated that the spill did not reach ground water or surface water.

2.5 REGULATORY HISTORY

Kimball Piano and Organ Company, Inc., submitted a Notification of Hazardous Waste Activity form to EPA on August 18, 1980 (Kimball, 1980a). The notification reported that hazardous waste generation, treatment, storage, and disposal (G/TSD) were taking place at the facility. Kimball Piano and Organ Company, Inc., submitted a RCRA Part A permit application on November 21, 1980 (Kimball, 1980b). The application listed the following process code and capacity: container storage (S01) unit of 55 gallons. The application also listed an estimated 22 tons of D000 waste generation per year. The D000 code referred to vapor degreasing solvent wastes (11% isopropyl alcohol, 50% 1,1,1-trichloroethane, and 38% trichlorofluoroethane) generated by the facility. Based on the contents of vapor degreasing solvent it should have been represented by D001, F001 or F002 waste code. The container storage (S01) unit referred to the Former Hazardous Waste Storage Area (SWMU 9).

On December 29, 1981, the Indiana State Board of Health (ISBH) conducted a RCRA G/TSD inspection and found the facility using a water-based organo flux instead of Kester solvent to clean the circuit boards (ISBH, 1982). The ISBH also found all the hazardous wastes stored at the facility shipped off site (ISBH, 1982). According to the inspection report, the facility representatives indicated their intentions to not to store any hazardous wastes in future. Based on these findings, ISBH indicated to Kimball that it may not be subject to RCRA regulations (ISBH, 1982). However, ISBH requested Kimball to contact EPA for a change in status. On January 6, 1982, Kimball submitted a letter indicating disposal of all hazardous wastes at an off-site facility, and requesting a change in status to large quantity generator (Kimball,

1982a). On March 31, 1982, the facility submitted a closure certification stating that no hazardous wastes were being stored for greater than 90 days at the facility (Kimball, 1982b). On May 19, 1982, EPA sent a letter to Kimball stating that ISBH would conduct an inspection to determine whether hazardous wastes were properly managed during closure activities (EPA, 1982). PRC did not find any information pertaining to the inspection or the official approval of the closure in the files reviewed at the EPA and IDEM offices.

In October 1985, the facility changed its name to Kimball Electronics-Jasper Division, and subsequently filed a Notification of Hazardous Waste Activity form on October 28, 1985. This notification reported that only hazardous waste generation was taking place at the facility. The facility's current status is that of a large-quantity generator of hazardous wastes that stores its wastes for less than 90 days.

In the past, Kimball had some RCRA compliance violations. An inspection conducted by ISBH on June 11, 1985, identified violations pertaining to hazardous waste manifesting (ISBH, 1985). PRC did not find any information during the file review to determine whether the facility corrected the noncompliance.

The facility has three operating air permits, one each for the spray conformal coater, dip tank conformal coater, and solder flux cleaning operation contained in three booths labeled 2, 3, and 4 (IDEM, 1989). The permits limit volatile organic compound (VOC) emissions to 2 tons per month per machine and 25 tons per year per machine. These permits are reportedly valid for a period of 3 years. Reportedly, the facility has filed for an updated operating permit, and is awaiting IDEM's response. The facility has not violated its air permits and has no history of odor complaints from the area residents.

The facility does not have a National Pollutant Discharge Elimination System (NPDES) permit. According to a document submitted by Kimball to PRC during the VSI, the facility is required to obtain an NPDES permit for its surface water discharge (Kimball, 1992d). Stormwater from the facility is discharged to the City of Jasper sanitary sewer system. All the pretreated wastewater is sent to a publicly owned treatment works (POTW), the City of Jasper Sewer System, which in turn discharges into the Patoka River. According to a facility representative, IDEM issues the construction permits required for any changes to the system, while the City of Jasper regulates the effluent standards. The facility has not violated any wastewater discharge permits.

The facility uses a 4,700-gallon non-metal bearing wastewater sump (SWMU 6), 558-gallon metal bearing wastewater sump (SWMU 6), and a 500-gallon polyethylene underground storage tank (SWMU 5) for accumulating metal bearing wastewater. No underground storage tanks are used for storing petroleum products. The facility has not conducted any CERCLA activities.

2.6 ENVIRONMENTAL SETTING

This section describes the climate; floodplains and surface water; geology and soils; and ground water in the vicinity of the facility.

2.6.1 Climate

The climate of Dubois County is midcontinental and is characterized by a wide range in temperature (USDA, 1980). The average daily temperature is 53.1 degrees Fahrenheit (°F). The lowest average daily temperature is 19 °F in January. The highest average daily temperature is 87 °F in July. Generally, the weather is excessively hot in midsummer (USDA, 1980).

The total annual precipitation for the county is 44.88 inches (USDA, 1980). Rainfall is generally well distributed throughout the year but is slightly greater in spring and summer than in fall and winter (USDA, 1980). The average seasonal snowfall is 17 inches. The mean annual lake evaporation for the area is about 34 inches (USDC, 1968). The 1-year, 24-hour maximum rainfall is about 5.73 inches, and was recorded at Paoli, Dubois County, Indiana (USDA, 1980).

The prevailing wind is from the south-southwest. Average wind speed is highest in March at 10 miles per hour. The average relative humidity in midafternoon is about 60 percent (USDA, 1980).

2.6.2 Floodplains and Surface Water

The facility is not located in a floodplain or a flood-prone area. However, the area located 800 feet east of the facility experiences temporary flooding from the Patoka River (USDI, 1989). Surface water runoff at the facility is discharged to the Patoka River through stormwater drains located in the parking lots on site.

The nearest surface water body, the Patoka River, is located within 0.25 mile east of the facility and is used for drinking water, agricultural, commercial, and recreational purposes (USGS, 1990). The Patoka River runs east-west, and commingles with the Wabash River which is located 50 to 60 miles west of the facility. Several lakes, intermittent streams, drains, and brooks were identified within a 3-mile radius of the facility (USGS, 1990). These include Calumet Lake located 0.5 mile northwest, Buffalo Creek located 0.5 mile north, Plain Drain located 0.75 mile northeast, Cline Brook and Jasper Lake located about 0.5 and 2 miles east, Pat Run and Ditch Branch located 1 to 1.5 mile southwest, and Jasper Drain and Crooked Creek located 1 to 1.5 mile west of the facility. These lakes, streams, drains, and brooks commingle with the Patoka River along its course, and are used for recreational purposes.

2.6.3 Geology and Soils

The facility is located in Highland Rim Section of Interior Low Plateaus physiographic province. The Interior Low Plateaus are underlain by sedimentary rocks of Paleozoic age. Most of the rocks are sandstones, shales, and limestones, but some conglomerates and coal beds are present (Pirkle and Yoho, 1982).

The facility is underlain by soils of the Tilsit and Zanesville series. These series consist of deep soils that are moderately well drained and slowly permeable. Also, these soils have a moderate water capacity. These soils are formed in loess and in residuum of the underlying siltstone, sandstone, or shale. Slopes of the Tilsit series range from 0 to 6 percent, and of the Zanesville series from 6 to 12 percent. The depth to seasonal water table in these soils ranges from 1 to 3 feet below the land surface (bls) (USDA, 1980).

A review of the drilling logs of water wells within a 1-mile radius of the facility indicate presence of alternate layers of sandstone and shale between 15 and 120 feet below land surface (IDNR, 1992). Water bearing sand was observed at a depth of 120 feet. Bedrock was generally encountered at shallow depths, between 10 to 20 feet.

2.6.4 Ground Water

The Dakota Sandstone is the principal aquifer in this region. Water bearing sand was generally encountered at a depth of 100 feet. The water table in this area is about 17 to 20 feet deep (IDNR, 1992). Production rates of area wells range between 150 to 400 gallons per hour.

Information pertaining to ground-water flow in shallow and deep aquifers is unknown. However, based on the topography of the area, shallow ground water is expected to flow in the southwest direction. PRC contacted IDNR to obtain additional information pertaining to ground water; however, an IDNR representative indicated that they do not have any information other than well logs.

2.7 RECEPTORS

The facility occupies 8.2 acres in an industrial, commercial, and residential area in Jasper, Indiana. Jasper has a population of about 10,000 (SFRA, 1991).

The facility is bordered on the north by East 16th Street and Jasper Laminates - Plant No. 3, a division of KI; on the east by Cherry Street and Inwood Office Furniture Company; on the south by East 15th Street and ARTEC - a division of KI; and on the west by Kellersville Road and KI Corporate Headquarters.

Ground water in this area is used for agricultural, industrial, and private water supply. About nine wells were identified within a 1-mile radius of the facility. The nearest drinking water well is located about 0.5 mile west and upgradient of the facility. The nearest industrial well is located about 0.5 mile southwest and downgradient of the facility.

The nearest surface water body, the Patoka River is located within 0.25 mile east of the facility and is used for municipal, agricultural, commercial, and recreational purposes. Patoka River runs east-west and commingles with the Wabash River, which is located 50 to 60 miles west of the facility. Several lakes, intermittent streams, drains, and brooks were identified within a 3-mile radius of the facility. These lakes, streams, drains, and brooks commingle with the Patoka River along its course, and are used for recreational purposes.

The facility is not located in a flood-prone area or sensitive environment. The area located 800 feet east of the facility experiences temporary flooding from the Patoka River. The nearest sensitive environment, wetlands, is located within 1 mile north of the facility. The areal extent of the wetlands is unknown.

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the nine SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC's observations. Figure 2 shows the SWMU locations.

SWMU 1	**Hot Room--Flammable Hazardous Waste Storage Area**
Unit Description:	This unit is located in the northwestern portion of the facility and is enclosed in a building with a concrete floor. This unit measures approximately 40 feet by 15 feet and is diked. This unit is used to store 55-gallon drums of flammable wastes and raw materials.
Date of Startup:	This unit began operation in late 1984.
Date of Closure:	This unit is active and is used for less-than-90-day storage.
Wastes Managed:	This unit manages flammable hazardous wastes generated during the facility operations. These wastes include the mixture of spent isopropyl alcohol and ethyl alcohol (D001); waste organo flux containing isopropyl alcohol (D001); floor stripping residue containing methylene chloride (F002); defective conformal coating containing toluene and xylenes (D001); and spent acetone, xylene, and toluene (D001, F003, and F005). These wastes are transported by Ulrich Chemical to Avganic Industries in Terra Haute, Indiana, for solvent recovery and fuel blending.
Release Controls:	This unit is located indoors and is diked. No floor drains were observed in the vicinity of this unit.
History of Documented Releases:	There have been no documented releases from this unit.

Observations:	During the VSI, PRC observed eight 55-gallon drums of flammable wastes containing isopropyl alcohol, toluene, xylenes, acetone, and methylene chloride. Some raw flux material was also stored in this unit. All the drums were sealed. PRC observed no evidence of releases in this unit (see Photograph 1).
SWMU 2	**Waste Trichlorofluoroethane Storage Area**
Unit Description:	This unit is located immediately south of the Hot Room--Flammable Hazardous Waste Storage Area (SWMU 1). The unit measures approximately 10 feet by 5 feet, and is enclosed in a building with a concrete floor. This unit has secondary containment. All the wastes in this unit are stored in 55-gallon drums.
Date of Startup:	This unit began operation in about 1984.
Date of Closure:	This unit is active and is used for less-than-90-day storage.
Wastes Managed:	This unit manages a mixture of spent methyl alcohol and trichlorofluoroethane (F002). This waste is transported by Ulrich Chemicals to Avganic Industries of Terra Haute, Indiana for solvent recovery, fuel blending and incineration.
Release Controls:	This unit is enclosed in a building with a concrete floor and has secondary containment. No floor drains were observed in the vicinity of this unit.
History of Documented Releases:	There have been no documented releases from this unit.
Observations:	During the inspection, PRC observed three 55-gallon drums of F002 waste stored in this unit. All the drums were

sealed. PRC observed no evidence of releases from this unit (see Photograph 2).

SWMU 3 **Nonflammable and Acidic Hazardous Waste Storage Area**

Unit Description: This unit is located west of the Hot Room--Flammable Hazardous Waste Storage Area (SWMU 1) and is enclosed in a building with a concrete floor. It measures approximately 30 feet by 30 feet. Cotton rolls were spread around this unit to contain any spills. Wastes in this unit are stored in 55-gallon drums.

Date of Startup: This unit began operation in about 1984.

Date of Closure: This unit is active and is used for less-than-90-day storage.

Wastes Managed: This unit manages and spent HAL flux containing lead (D008) and spent wastewater filters containing copper, nickel, and chromium (F006). This unit formerly managed PTH process wastes including spent copper bath containing sulfuric acid (D002); waste residue remover containing hydrochloric acid (D002); waste developer containing sulfuric acid and nickel (D002); spent copper filters containing sulfuric acid (D002); spent tin and lead filters containing methane sulfonic acid (D002); waste acid cleaner containing sulfuric acid (D002); waste acid cleaner containing fluobonic acid (D002); immersion tin bath of stannous fluobonic acid (D002); waste black oxide bath of sodium hydroxide and sodium chloride (D002); and waste tin/lead bath of sodium hydroxide (D002). Spent HAl flux is transported by Heritage Transport to Michigan Disposal in Belleville, Michigan, for treatment and landfilling. Spent wastewater filters are transported by Heritage Transport to Heritage Environmental Services of Indianapolis, Indiana,

for treatment and landfilling. The ultimate disposition of PTH process wastes is detailed in Section 2.3.

Release Controls: This unit is enclosed in a building with a concrete floor. Several cotton rolls were spread around this unit to contain spills. No floor drains were observed in the vicinity of this unit.

History of Documented Releases: There have been no documented releases from this unit.

Observations: During the VSI, PRC observed 25 55-gallon drums of D002 and D008 wastes in this unit. D002 wastes were stored in plastic drums. All the drums were sealed. PRC observed no evidence of releases in this unit (see Photograph No. 3).

SWMU 4 **Special Wastes Storage Area**

Unit Description: This unit is located in the same room as and adjacent to the Nonflammable and Acidic Hazardous Waste Storage Area (SWMU 3). The unit is enclosed in a building with a concrete floor and measures about 20 feet by 20 feet. All the special wastes generated at the facility, categorized based on analytical results and IDEM's approval, are stored in 55-gallon drums in this unit. This unit also contains a 1,000-gallon AST for storage of spent cupric chloride and hydrochloric acid solution (D002).

Date of Startup: This unit began operation in about 1984.

Date of Closure: This unit is active and is used for less-than-90-day storage.

Wastes Managed: This unit manages hazardous and special wastes. Spent cupric chloride and hydrochloric acid solution (D002) is the only hazardous waste managed in this unit. Special wastes include PTH scrubber machine filters; MP50 sponge type

filters; chemcutt machine webb filters; webb filter paper; stainless steel screen mesh; scrubber machine filter paper; scrubber machine filters; screening tank rags and gloves; polyester screen mesh; vapor solder machine filters; scrubber machine recycler filters (bag type); scrubber machine recycle prefilters; Aqua Media; paint filter; overspray papers; glue filters; Thermalcote/4-WAL gloves, rags, and cardboard; silicone rubber/4-WAL gloves, rags, and cardboard; adhesive/activator/isopropyl alcohol gloves, rags, and cardboard; tap water de-ionizer cartridges; Omegameter alcohol/water de-ionizer cartridges; sorbent pigs and lime; foil contaminated with flux; and gloves, rags, and foil contaminated with humiseal coating. Kimball is permitted to dispose all special wastes at Blackfoot Sanitary Landfill of Lynnville, Indiana, and Jasper Landfill of Jasper, Indiana. Reportedly, the facility analyzes these wastes periodically and submits the data to IDEM for special waste consideration.

Release Controls: This unit is enclosed in a building with a concrete floor. No floor drains were present in the vicinity of this unit.

History of Documented Releases: There have been no documented releases from this unit.

Observations: During the VSI, PRC observed approximately 20 55-gallons drums of special wastes in this unit. The 1,000-gallon AST had about 750 gallons of spent cupric chloride and hydrochloric acid solution (D002). The AST appeared to be in a good condition (no leaks). PRC observed no evidence of releases from this unit (see Photograph 4).

SWMU 5	**Wastewater Holding Tank**
Unit Description:	This unit is a 500-gallon high-density polyethylene cylinder with a dome. The unit is installed underground and covered with concrete and a low-density polyethylene liner. It is located adjacent to the Spent Cupric Chloride Tank (SWMU 7). This unit manages wastewater from etching, screening, and soldercoat precleaning operations.
Date of Startup:	This unit began operation in 1988.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous wastewater containing copper, nickel, and chromium. Wastewater collected in this unit is pretreated in the Wastewater Pretreatment Plant (SWMU 6), and discharged to the City of Jasper sanitary sewer system.
Release Controls:	This unit is equipped with float switches that alarm facility personnel in case of overflow, and shut off the wastewater inlets. This unit is provided with a 6-inch concrete barrier for additional retention in emergency.
History of Documented Releases:	There have been no documented releases from this unit.
Observations:	PRC did not observe this unit during the VSI. PRC determined the presence of this unit from the documents obtained from Kimball after the VSI.
SWMU 6	**Wastewater Pretreatment Plant**
Unit Description:	This unit is located in the northwestern portion of the facility and is enclosed in a building. This unit is used for pretreating industrial wastewater generated during screening

and etching operations. The industrial wastewater includes non-metal bearing wastes and metal bearing wastes. The non-metal bearing wastewater is collected in a 4,700-gallon non-metal bearing sump and treated in a 1,289-gallon neutralization reactor (N-1) before discharging into the City of Jasper sanitary sewer system. A 558-gallon concentrated metal-bearing sump, a 4,400-gallon metal bearing sump, two 1,289-gallon neutralization reactors (N-2 and N-3), a 440-gallon flocculator, a clarifier, and a filter press are used to treat the metal bearing wastewater. About 11,000 gallons of wastewater is treated each day. IDEM regulates the construction permits, and the city of Jasper Wastewater Treatment Plant regulates the discharge permits for the wastewater treatment plant. The facility monitors the copper levels on a hourly basis, and other metals (lead and tin) on a weekly basis. Also, the facility monitors for total toxic organics every 6 months. Sludge generated during treatment process is filter pressed, dewatered, and stored in a fenced 30-cubic-yard roll-off dumpster located outdoors. Spent wastewater filters from filter press are stored in 55-gallon drums in the Nonflammable and Acidic Hazardous Waste Storage Area (SWMU 3).

Date of Startup: This unit began operation in 1985.

Date of Closure: This unit is active.

Wastes Managed: This unit manages industrial wastewater and wastewater sludge containing copper, nickel, and chromium (F006). Pretreated wastewater is discharged to a permitted facility, the City of Jasper sanitary sewer system, Jasper, Indiana. Wastewater sludge (F006) is transported by Envirite to its facility in Harvey, Illinois.

Release Controls:	This unit is enclosed in a building with a concrete floor; and it has concrete trench drains for collecting any spills.
History of Documented Releases:	There have been no documented releases from this unit.
Observations:	During the VSI, PRC observed the pretreatment plant and the sludge storage area. About half the roll-off dumpster was filled with sludge. According to a facility representative, the plant operations are supervised by a Class C Wastewater Treatment Operator. PRC observed no evidence of releases from this unit (see Photographs 5 and 6).
SWMU 7	**Cupric Chloride Holding Tank**
Unit Description:	This unit is a 3,000-gallon AST constructed of fiberglass resin. It is located adjacent to the Wastewater Holding Tank (SWMU 5) in the eastern portion of the facility. This unit is located indoors on a concrete base. Wastes generated during etching and screening operations are stored in this unit.
Date of Startup:	This unit began operation in 1975.
Date of Closure:	This unit is active and is used for less-than-90-day storage.
Wastes Managed:	This unit manages a mixture of spent cupric chloride and hydrochloric acid (D002) generated during etching and screening operations. These wastes are transported by Metropolitan Environmental, Inc., to Recontek in Newman, Illinois, for neutralization and copper reclamation.
Release Controls:	This unit is enclosed in a building with concrete floor. No floor drains were observed in the vicinity of this unit.

History of Documented Releases:	There have been no documented releases from this unit.
Observations:	During the VSI, PRC observed the area where the tank is located. The tank appeared to be in a good condition without any rusting or leakage. PRC observed no evidence of releases from this unit. The photograph taken by PRC is not included in the attachment to this report because of the poor quality.
SWMU 8	**Production Area Satellite Accumulation Unit**
Unit Description:	This unit is enclosed in the production area of the building and has a concrete floor. Several 55-gallon drums were used for waste accumulation in various locations in this unit. Areas where these drums were located included the wave soldering operations area, circuit board cleanup area (former PTH process area), solder cleanup operations area, etching operations area, and screening operations area.
Date of Startup:	This unit began operation in about 1985.
Date of Closure:	This unit is active and is used for waste accumulation only.
Wastes Managed:	This unit manages both hazardous and special wastes generated through out the facility. All the wastes but those generated during wastewater treatment operations are accumulated in this unit prior to being transferred and stored at the Hot Room--Flammable Hazardous Waste Storage Area (SWMU 1), the Waste Trichlorofluoroethane Storage Area (SWMU 2), the Nonflammable and Acidic Hazardous Waste Storage Area (SWMU 3), and the Special Waste Storage Area (SWMU 4) for less-than-90-day storage.

Release Controls:	This unit is enclosed in a building and has a concrete floor. A steel-grated concrete trench runs through the production area. This trench drains to the Wastewater Pretreatment Plant (SWMU 6).
History of Documented Releases:	There have been no documented releases from this unit.
Observations:	During the VSI, PRC observed about 10 55-gallon drums of D002, D008, and special wastes in this unit. All the drums were sealed and labeled. PRC observed no evidence of releases from this unit (see Photographs 7 to 9).
SWMU 9	**Former Hazardous Waste Storage Area**
Unit Description:	This unit was located outdoors in the eastern portion of the facility. This unit measures 30 feet by 30 feet and has a concrete floor. This unit was formerly used to store 55-gallon drums of hazardous wastes. This unit is listed as the container storage (S01) unit in the RCRA Part A permit application.
Date of Startup:	This unit began operation in about 1980.
Date of Closure:	All the wastes from this unit were shipped off-site in 1982. Since then this unit is inactive. Information as to IDEM's or EPA's approval of closure of this unit was not found during the file reviews conducted by PRC.
Wastes Managed:	This unit managed spent Kester solvent (D000), a vapor degreasing solvent, containing isopropyl alcohol, 1,1,1-trichloroethane, and trichlorofluoroethane. Based on the contents of this solvent it should have been represented by D001, F001 or F002 waste code. The waste was transported

	to Jones Chemical Company (IND 006 058 556) of Beech Grove, Indiana.
Release Controls:	This unit has a concrete floor, but has no secondary containment.
History of Documented Releases:	There have been no documented releases from this unit.
Observations:	During the VSI, no wastes were stored in this unit. PRC observed no evidence of releases from this unit.

4.0 AREAS OF CONCERN

PRC identified no AOCs during the PA/VSI.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified nine SWMUs and no AOCs at the Kimball facility. Section 2.0 presents Background information on the facility's location; operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. Following are PRC's conclusions and recommendations for each SWMU. Table 3, at the end of this section, summarizes the SWMUs at the facility and the further actions recommended.

SWMU 1 **Hot Room--Flammable Hazardous Waste Storage Area**

Conclusions: This unit does not pose a significant threat to the surrounding environment. The unit is enclosed in a building with a concrete floor. Also, the unit has explosion-proof lighting, fire doors, and is diked. All drums stored in this unit were sealed and labeled. There have been no documented or observed releases from this unit. The potential is low for releases from this unit to ground water, surface water, air, or on-site soils.

Recommendations: PRC recommends no further action at this time.

SWMU 2 **Waste Trichlorofluoroethane Storage Area**

Conclusions: This unit does not pose a significant threat to the surrounding environment. The unit is enclosed in a building with a concrete floor, and has secondary containment. All drums stored in this unit were sealed and labeled. There have been no documented or observed releases from this unit. The potential is low for releases from this unit to ground water, surface water, air, or on-site soils.

Recommendations: PRC recommends no further action at this time.

SWMU 3	**Nonflammable and Acidic Hazardous Waste Storage Area**
Conclusions:	This unit does not pose a significant threat to the surrounding environment. The unit is enclosed in a building with a concrete floor and has secondary containment. Cotton absorbent rolls were spread around this unit to contain any spills. All drums stored in this unit were sealed and labeled. There have been no documented or observed releases from this unit. The potential is low for releases from this unit to ground water, surface water, air, or on-site soils.
Recommendations:	PRC recommends no further action at this time.
SWMU 4	**Special Waste Storage Area**
Conclusions:	This unit does not pose a significant threat to the surrounding environment. The unit is enclosed in a building with a concrete floor. All drums stored in this unit were sealed and labeled. There have been no documented or observed releases from this unit. The potential is low for releases from this unit to ground water, surface water, air, or on-site soils.
Recommendations:	PRC recommends no further action at this time.
SWMU 5	**Wastewater Holding Tank**
Conclusions:	This unit does not pose a significant threat to the surrounding environment. The unit is located underground and is equipped with release controls to preclude overflows. There have been no documented or observed releases from this unit. The potential is low for releases from this unit to groundwater, surface water, air, or on-site soils.
Recommendations:	PRC recommends no further action at this time.

SWMU 6	**Wastewater Pretreatment Plant**
Conclusions:	This unit does not pose a significant threat to the surrounding environment. The unit is enclosed in a building with a concrete floor. Sludge generated during wastewater treatment operations is stored in a roll-off dumpster outdoors on an asphalt surface. There have been no documented or observed releases from this unit. The potential is low for releases from this unit to ground water, surface water, air, or on-site soils.
Recommendations:	PRC recommends no further action at this time.
SWMU 7	**Cupric Chloride Holding Tank**
Conclusions:	This unit does not pose a significant threat to the surrounding environment. The unit is enclosed in a building with a concrete floor. There have been no documented or observed releases from this unit. The potential is low for releases from this unit to ground water, surface water, air, or on-site soils.
Recommendations:	PRC recommends no further action at this time.
SWMU 8	**Production Area Satellite Accumulation Units**
Conclusions:	This unit does not pose a significant threat to the surrounding environment. The unit is enclosed in a building with a concrete floor. All drums stored in this unit were sealed and labeled. There have been no documented or observed releases from this unit. The potential is low for releases from this unit to ground water, surface water, air, or on-site soils.
Recommendations:	PRC recommends no further action at this time.

SWMU 9	**Former Hazardous Drum Storage Area**
Conclusions:	This unit does not pose a significant threat to the surrounding environment. This unit is inactive. There have been no documented or observed releases from this unit. The potential is low for releases to ground water, surface water, air, or on-site soils from this unit.
Recommendations:	PRC recommends that Kimball furnish details pertaining to closure inspection and approval.

TABLE 3

SWMU SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
1. Hot Room--Flammable Hazardous Waste Storage Area	1984 to present	There have been no documented or observed releases from this unit	None
2. Waste Trichlorofluoroethane Storage Area	1984 to present	There have been no documented or observed releases from this unit	None
3. Nonflammable and Acidic Hazardous Waste Storage Area	1984 to present	There have been no documented or observed releases from this unit	None
4. Special Waste Storage Area	1984 to present	There have been no documented or observed releases from this unit	None
5. Wastewater Holding Tank	1985 to present	There have been no documented or observed releases from this unit	None
6. Wastewater Pretreatment Plant	1985 to present	There have been no documented or observed releases from this unit	None
7. Cupric Chloride Holding Tank	1975 to present	There have been no documented or observed releases from this unit	None
8. Production Area Satellite Accumulation Units	unknown to present	There have been no documented or observed releases from this unit	None
9. Former Hazardous Waste Storage Area	1980 to 1982	There have been no documented or observed releases from this unit	Provide details on closure inspection and approval

REFERENCES

Indiana State Board of Health (ISBH), 1982, Letter from Mr. Ralph C. Pickard, ISBH, to Mr. Richard Hebeison, Kimball, Pertaining to RCRA G/TSD Inspection Findings, January 28.

ISBH, 1985, Letter from Mr. Thomas Russell, ISBH to Mr. Keith Masterson, Kimball, Pertaining to Violations Observed During RCRA-Generator Inspection, June 11.

IDEM, 1989, Letter from Mr. Thomas W. Ravick, IDEM, to Mr. Larry Kuntz, Kimball, issuing Air Permits, April 18.

Indiana Department of National Resources (IDNR), 1992, Drilling Logs of All the Wells Within a 3-Mile Radius.

Kimball, 1980a, Notification of Hazardous Waste Activity Form, August 18.

Kimball, 1980b, RCRA Part A Permit Application, November 21.

Kimball, 1985, Notification of Hazardous Waste Activity Form, October 28.

Kimball Electronics - Jasper Division (Kimball) 1992a, Facility Background by Mr. John W. Robinson.

Kimball, 1992b, List of Waste Streams by Mr. John W. Robinson, August 25.

Kimball, 1992c, Additional Information in Response to PRC Letter Dated October 22, 1992, November 10.

Kimball, 1992d, Environmental Management Plan by Mr. John W. Robinson, Kimball, July 10.

Kimball, 1982a, Letter from Mr. Keith Masterson, Kimball to Mr. Al Debus, EPA regarding Changes in Facility Status, January 6.

Kimball, 1982b, Letter from Mr. Keith Masterson, Kimball, and a Closure Certification to Mr. Victor Debus, EPA, March 31.

Pirkle, E.C., and W.H. Yoho, 1975, Natural Landscapes of the United States, 3rd Edition, Kendall/Hunt Publishing Company, Dubuque, Iowa.

U.S. Department of Agriculture (USDA), 1981, Soil Survey of Dubois County, Indiana.

U.S. Department of Commerce (USDC), 1968, Climatic Atlas of United States.

U.S. Department of Interior (USDI), 1989, Fish and Wildlife Service, National Wetlands Inventory, Jasper, Indiana.

U.S. Environmental Protection Agency (EPA), 1982, Letter from Mr. William Miner, EPA, to Mr. Keith Masterson, Kimball, Indicating Closure Requirements, May 19.

U.S. Geological Survey (USGS), 1990, Topographic Map of Jasper Quadrangle.

State Farm Road Atlas (SFRA), 1991, Published by Rand McNally, New York, NY.

ATTACHMENT A

EPA PRELIMINARY ASSESSMENT FORM 2070-12

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
IND	094 205 614

II. SITE NAME AND LOCATION

01 SITE NAME *(Legal, common, or descriptive name of site)*	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER
Kimball Electronics, Inc.	1038 East 15th Street

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Jasper	IN	47549	Dubois		

09 COORDINATES: LATITUDE	LONGITUDE
38° 23' 35" N	86° 55' 02" W

10 DIRECTIONS TO SITE *(Starting from nearest public road)*
Follow U.S. Highway 231 into Jasper and take East 15th Street at the intersection and get on to Jasper Kellersville Road.

III. RESPONSIBLE PARTIES

01 OWNER *(if known)*	02 STREET *(Business, mailing residential)*
Kimball International, Inc.	1038 East 15th Street

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Jasper	IN	47549	(800) 634-4005

07 OPERATOR *(If known and different from owner)*	08 STREET *(Business, mailing, residential)*
Same as owner	

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER

13 TYPE OF OWNERSHIP *(Check one)*
☒ A. PRIVATE ☐ B. FEDERAL: _____ *(Agency Name)* ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER _____ *(Specify)* ☐ G. UNKNOWN

14. OWNER/OPERATOR NOTIFICATION ON FILE *(Check all that apply)*
■ A. RCRA 3010 DATE RECEIVED: 8/18/80 (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE *(CERCLA 103 c)* DATE RECEIVED: / / (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES ☐ NO DATE 7/ 14 /92
BY *(Check all that apply)*
☐ A. EPA ☒ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ *(Specify)*
CONTRACTOR NAME(S): PRC Environmental Management, Inc.

02 SITE STATUS *(Check one)*	03 YEARS OF OPERATION
■ A. ACTIVE ☐ B. INACTIVE ☐ C.UNKNOWN	1968 (BEGINNING YEAR) / present (ENDING YEAR) ☐UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Hazardous wastes including D001, D002, D008, F002, F003, F005 and F006 wastes are generated and stored for less than 90 days at the facility.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

The potential is low for releases to ground water, surface water, air or on-site soils.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION *(Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)*

☐ A. HIGH *(Inspection required promptly)* ☐ B. MEDIUM *(Inspection required)* ■ C. LOW *(Inspect on time-available basis)* ☐ D. NONE *(No further action needed; complete current disposition form)*

VI. INFORMATION AVAILABLE FROM

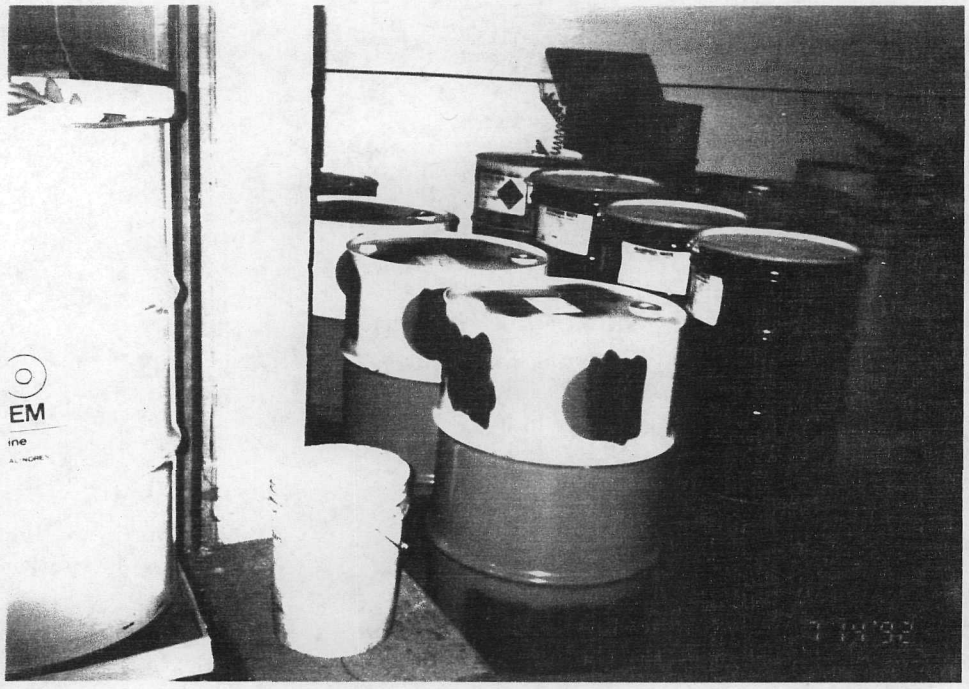
01 CONTACT	02 OF *(Agency/Organization)*	03 TELEPHONE NUMBER
Kevin Pierard	U.S. EPA	(312) 886-4448

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Seshu Kulkarni		PRC	(615) 256-1191	01 / 27 / 93 (MONTH DAY YEAR)

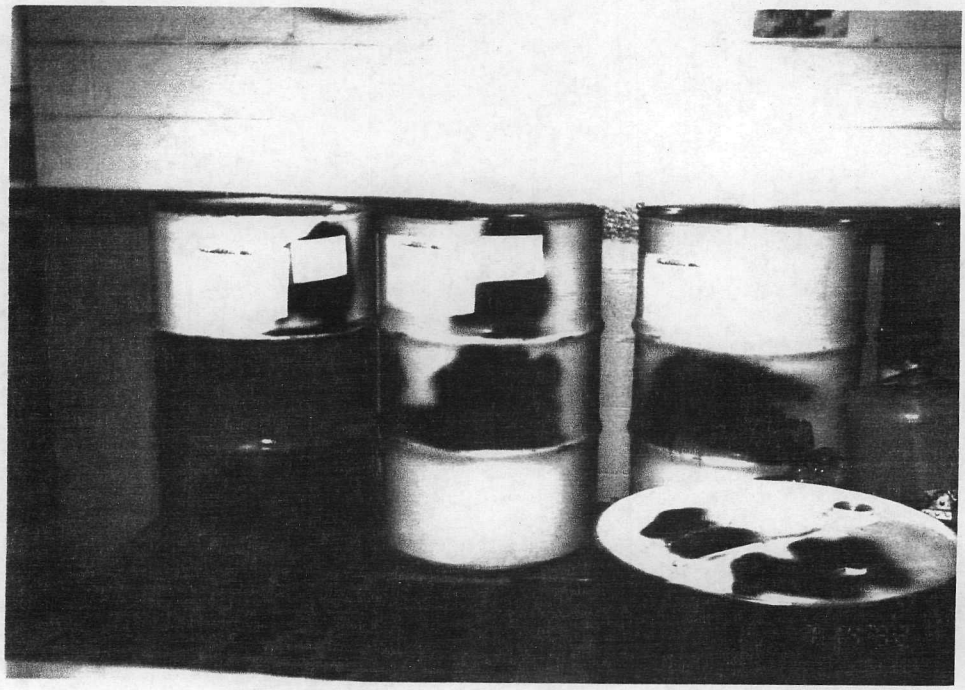
ATTACHMENT B
VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

VISUAL SITE INSPECTION SUMMARY
KIMBALL ELECTRONICS, INC.
JASPER, INDIANA 47549
IND 094 205 614

Date:	July 14, 1992
Primary Facility Representative:	Mr. John W. Robinson
Representative Telephone No.:	812-634-4000
Additional Facility Representative:	Mr. Keith Masterson
Inspection Team:	Seshu Kulkarni, PRC Environmental Management, Inc. Brad Slaymaker, PRC Environmental Management, Inc.
Photographer:	Seshu Kulkarni
Weather Conditions:	Sunny, 75 °F
Summary of Activities:	The visual site inspection (VSI) began at 1:00 p.m. with an introductory meeting. The inspection team explained the purpose of the VSI and the agenda for the visit. Facility representatives then discussed the facility's past and current operations, solid wastes generated, and release history. Facility representatives provided the inspection team with copies of requested documents. The VSI tour began at around 1:15 p.m. PRC visited all but one SWMU [Wastewater Holding Tank (SWMU 5)] at the facility. The tour concluded at 4:00 p.m., after which the inspection team held an exit meeting with facility representatives. The VSI was completed, and the inspection team left the facility at 4:15 p.m.

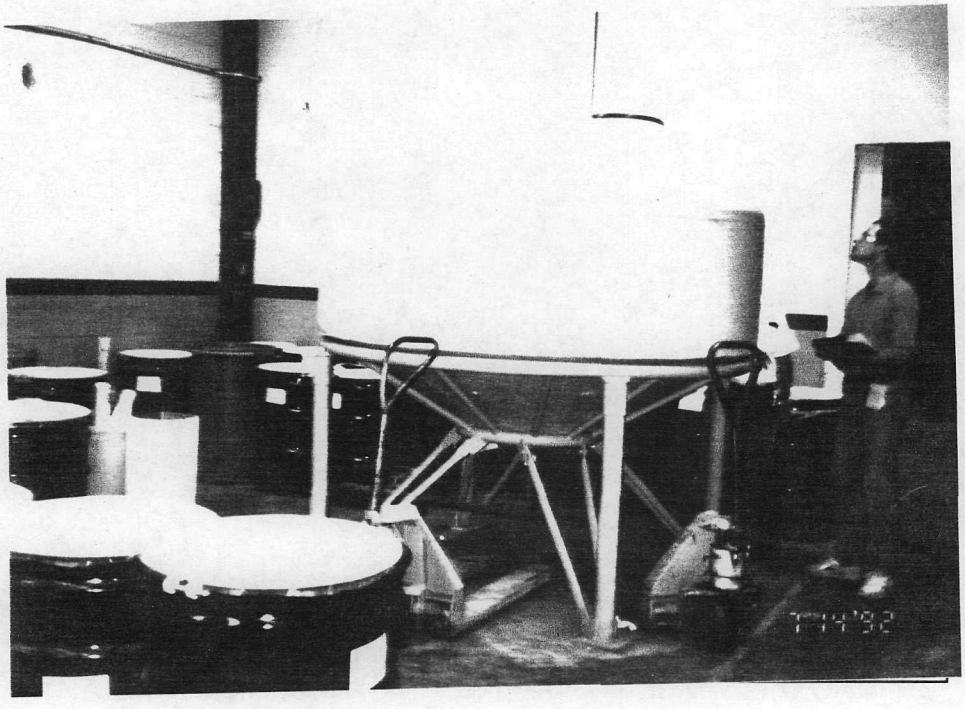


Photograph No. 1 Location: SWMU 1
Orientation: Northwest Date: 7/14/92
Description: This photograph shows the Hot Room--Flammable Hazardous Waste Storage Area (SWMU 1).

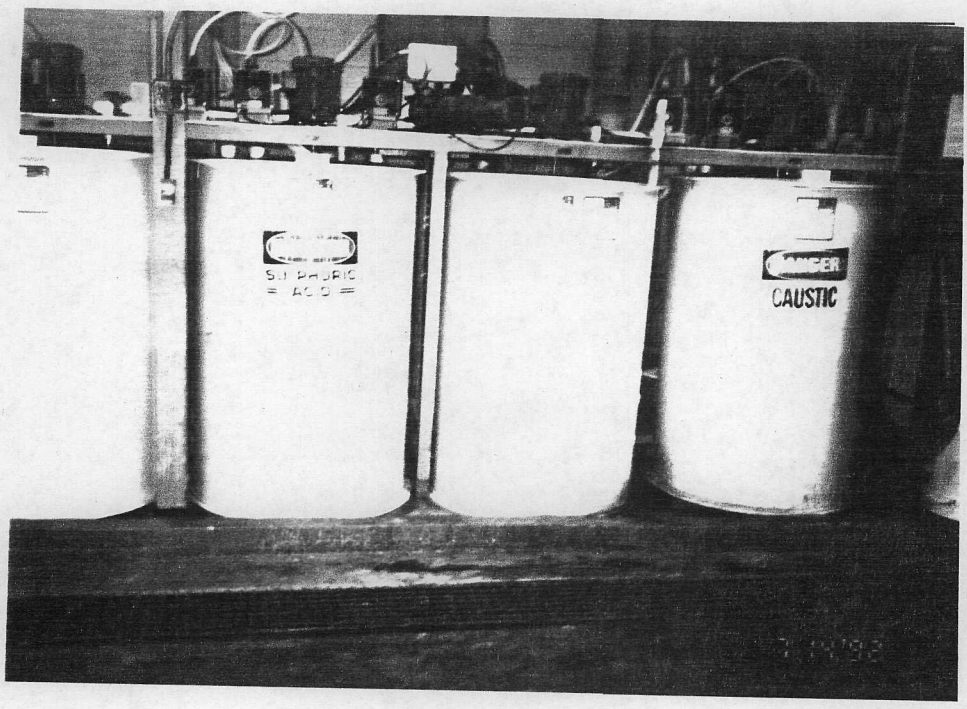


Photograph No. 2 Location: SWMU 2
Orientation: North Date: 7/14/92
Description: This photograph shows the Waste Trichloroflouroethane Storage Area (SWMU 2).

Photograph No. 3 Location: SWMU 3
Orientation: North Date: 7/14/92
Description: This photograph shows the Nonflammable and Acidic Hazardous Waste Storage Area (SWMU 3).

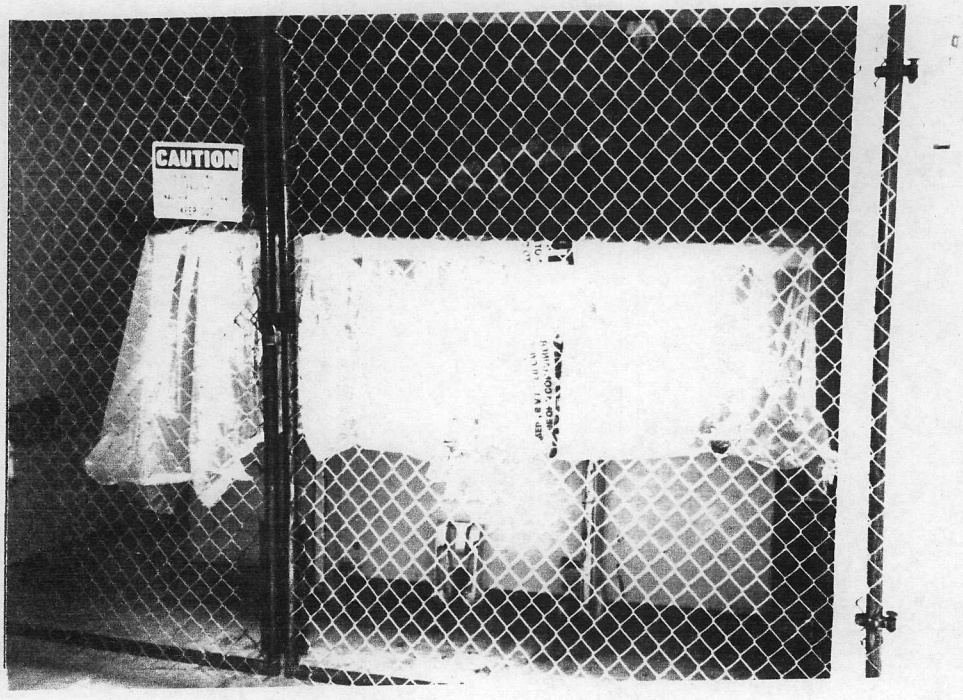


Photograph No. 4 Location: SWMU 4
Orientation: Southwest Date: 7/14/92
Description: This photograph shows the Special Waste Storage Area (SWMU 4).



Photograph No. 5
Orientation: South
Description: This photograph shows the Wastewater Pretreatment Area.

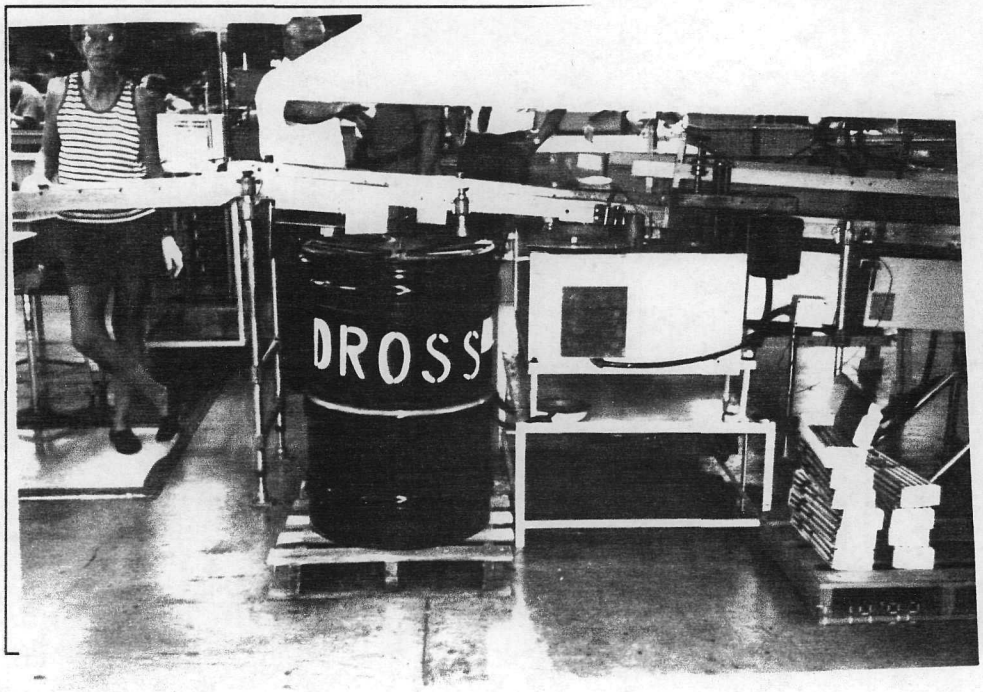
Location: SWMU 6
Date: 7/14/92



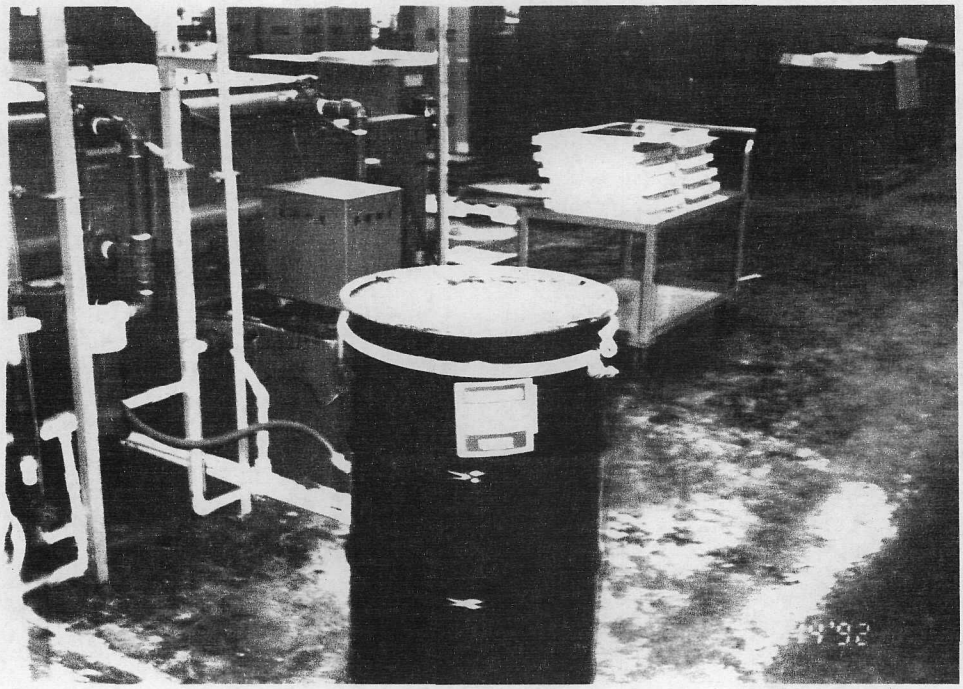
Photograph No. 6
Orientation: West
Description: This photograph shows the roll-off dumpster containing wastewater sludge.

Location: SWMU 6
Date: 7/14/92

Photograph No. 7 Location: SWMU 8
Orientation: East Date: 7/14/92
Description: This photograph shows a satellite accumulation unit containing copper filters and etching waters.



Photograph No. 8 Location: SWMU 8
Orientation: Northeast Date: 7/14/92
Description: This photograph shows a satellite accumulation unit containing one 55-gallon drum of special wastes.



Photograph No. 9 Location: SWMU 8
Orientation: West Date: 7/14/92
Description: This photograph shows a satellite accumulation area containing hazardous wastes.

ATTACHMENT C

VISUAL SITE INSPECTION FIELD NOTES

July 14, 92

Visual Site Inspection
of
Kimball Piano & Organs, Elektra Div
Jasper Indiana
IND 044 205 614

Inspection Team:
Mr. Brad Slaymaker
Mr. Seshu Kulkarni
PRC Environmental Mgmt, Inc.

1:00pm Met Mr. John Robinson
Mr. Keith Masterson
Mr. Jean Franklin
Started VSI.

1:05 Manufacturing / electronic parts
230,000 sq ft

650 employees (varies)

Pict 1 → Manufacturing Area South
" 2 → " " North
Picture 3 → Northwest Raw materials

Raw materials → Calcium Carbonate in 55 gall drums

8 - 55 gallon drums of hazardous waste (Dirty flux fuel-D001
Labelled properly
Sealed.
Isopropanol Toluene xylene Methylene chloride Acetone Thinner
Rags in the loading dock non hazardous
Picture 4 west

(4) 3 drums of Trichlorofloroethane. F002

Picture 5 → west

3-55 ~~drum~~ gallon drum of F002 wastes used to clean wiring boards

Secondary/containment provided

Reclaimed by organic Organic Industries, Inc

Waste Storage area (Nonflammable)

Picture 6 west

7 west

8-55 gallon plastic drums

Cotton rolls to contain the spills, concrete floor

no spills or releases

S. [illegible] July [illegible]

8 drums 1st row → D002 wastes (5)

8 drums 2nd row → D002, D008, wastes.

2 drums 3rd row → U122 waste Formaldehyde.

2 drums

1 drum → waste water filters F006 waste.

6 drums → D002 wastes

Photo 8 → North

9 → North

Non Fl. Haz waste area

lead dross wastes from the facility are recycled (reclaimed (check the name of the facility)

Acid wastes - fabrication of wiring boards.

S. [illegible] July [illegible]

(6)

Specialwastes. Storage Area
Approx ~~35~~ 20 - 55 gallon
drum of special wastes
stored in this area.

~~First TCLP~~
Perform TCLP on special
wastes and got approval
from IDEM.
U/H Disp: Black foot, Landfill

1,000 gallon AST of
plastic D002 wastes

~~Now South~~ SE
Photo 10 - South
D002 Waste Storage
tank.
Sulfuric Acid and
Copper baths

[signature] July 14/92

(7)

Waste water treatment facility
Photo 11 - west
12 - west
filter press
Neutralization w/ Caustic soda
and H_2SO_4
Sludge is disposed as
F006 wastes
Photo 13: South
filter pressed sludge F006.
Photo 14: East WW treatment area
Wastewater treatment operations
are performed by Class A
operator.
Photo 14: H_2SO_4, Caustic soda
East feeder tanks
Drainage trench - graded
Treat 11,000 gallons/day
of WW.

[signature] July 14/92

(8) Satellite Acc-Area #1

2-55 gallon drum — Rags/gloves that touched solder (DOOS waste)

photos 15 & 16 south Sat - Acc - Area #1

from cleanup of circuit boards before solding

Sat Accumulation Area #2

3-55-gallon drum of DOOS waste

1 of them is special waste

wave ~~[illegible]~~ solding operations

photo #16 17 → Sat Acc Area 2

Sat Acc Area #3

Screening operations

Cleanup of solder

DOOS

One - 55 gall.

J. Nelson July 14/92

(9) Picture 18 → North

SAA 3

Picture 19 — South

Out fall of organic wastes

Sat Acc. Area ~~#4~~

Picture 20 → North

lead dross wastes

Sat Acc Area #5

Special wastes

rags, gloves etc

Spc. Waste Accumulation area #6

copier paper

welder filter

Photograph 21 → ~~[illegible]~~ west

Photo 22 — South

Special waste from etching copper filter 3-drums

J. Nelson July 14/92

(10)

Picture 1 Frame 2
Circle waste storage
area near etching
operation 3,000 gallon
tank -

Pict 2 → NE Sat Accum Area
3 → NE

Screen wash
Xylene Solvent
Picture 4 → East Washout
5 → " Booths

in screening Area.

Spent waste storage in
Screening room
Sat Accum Area
Picture 6 (9) South Sout North East

J. Mullan
July 14/92

Completed VSI

(11)

2:50pm Exit meeting

Met Hugh Mattingly Plant Mgr.
Mr Jean Franklin Fac Manager
Mr. Keith Madison Env. Coord.
Mr. John Robinson of Tech Support Div

3:00pm Exit

J. Mullan
July 14/92

Kimball

7-14-92 Jasper, TN

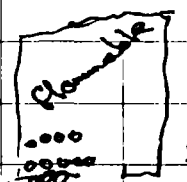
230,000 ft², 650 employees.

5 days, 24 hrs

Storage room 9 drums
isopropyl alcohol

flammable

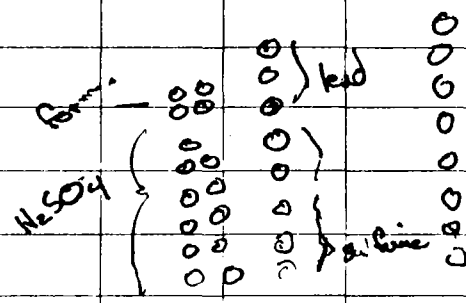
constant airflow
room is diked
concrete floor in



trichloroethane
trichlorotrifluoroethane

other room

8 - drums hydrogen peroxide
4 drums sulfuric
4 - lead
4 - formaldehyde



no dyke but portable berms
can set up. Floor slopes so
spills would be contained.

Appr. 25 drums of special waste

inside AGT of "copper bath" in a fiberglass 1000 gal tank. 875 gal permit.

Wastewater treatment facility. Discharges to city sewer. State permit.

Need records

11,000 gal. treated

- Scrub & clean - acid & solvent sober filter
- dirty flux 55-gal.
- deoxiding cleaner

also solder drum of glovers etc, waste.

- At least 9 satellite areas of accumulation. - solid material waste & special waste.
- flux & solder
- rinsing
- etch
- wash off copper with acid
- caustic
- rinse

4000 gallon tank - fiberglass on concrete. HCl - used in etching process.

- screen wash area - xylene 0940

2:55 meeting

John Robinson - Special Services

Applied for Part A in 1980 withdrew thereafter

- Large quantity generator -

Sent in a letter for closure - have not heard back but did get a reacknowledgment on the I.D. #.

- Hugh Mattingly - Plant Mgr.
- Gene Franklin - facility maintenance mangr./safety
- Keith Masterson - Env. Coord. of Techn. support

Don & John Miller. Purchased in 1986 ITT left in 1982?

Empty 4 yrs. Oct. 1987 began operations by Seneca.

Joe Henderson - Plant Eng.

"Impoundment in back of building" chromatic rinse.

Rufus Jackson took care of impoundment for ITT. Rufus said it was cleaned out. Tank was hooked to city sewer. State helped design system.